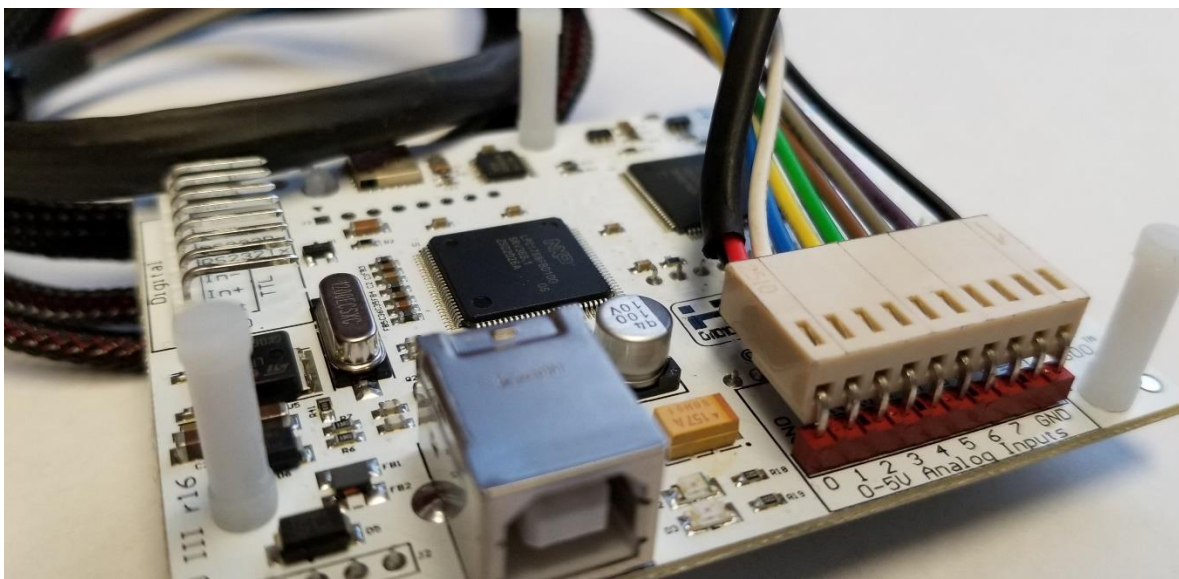


Analyzing the Knock Detective's output with Hondadata S300

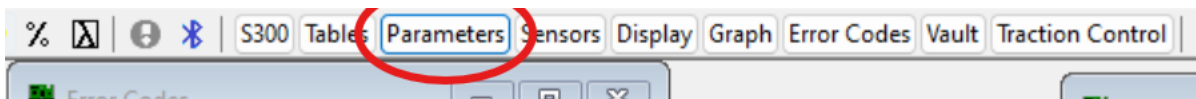
V1.0 - Jan 15, 2025



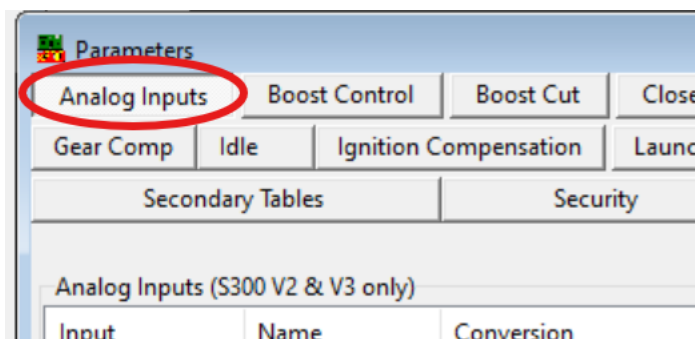
1 - Connect the **BLUE** wire from the Knock Detective to an available analog input wire on your S300. Take note of the number which is on the wire you have used. Make sure there is a ground connection from the Knock Detective to your S300. Since the exact voltage isn't crucial, the ground connection through the chassis may be sufficient, but you may want to connect it to the black wire running into the Analog Input connector.



2 - Navigate to the Parameters Tab:



3 - Select the Analog Inputs tab:



4 - Choose the input you have the Knock Detective wired to and configure it as shown below:

Input	Name	Conversion	Offset
Analog 0	Kock Detective	Raw Voltage	0 v
Analog 1		Unused	0 v
Analog 2		Unused	0 v
Analog 3		Unused	0 v
Analog 4		Unused	0 v
Analog 5		Unused	0 v
Analog 6		Unused	0 v
Analog 7		Unused	0 v

Details

Input: Analog 0

Name: Kock Detective

Conversion: Raw Voltage

Type: Voltage Unit: volts

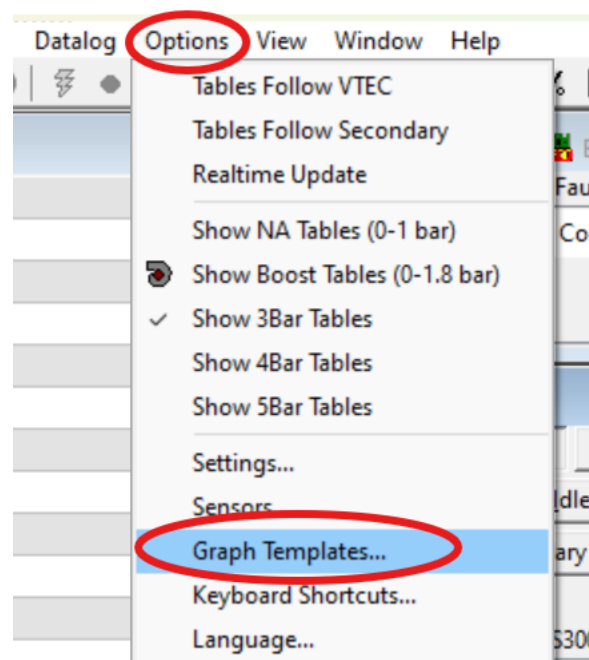
Voltage offset: 0 V

Note: If you need to enter a non-zero offset, then your analog ground is incorrect.

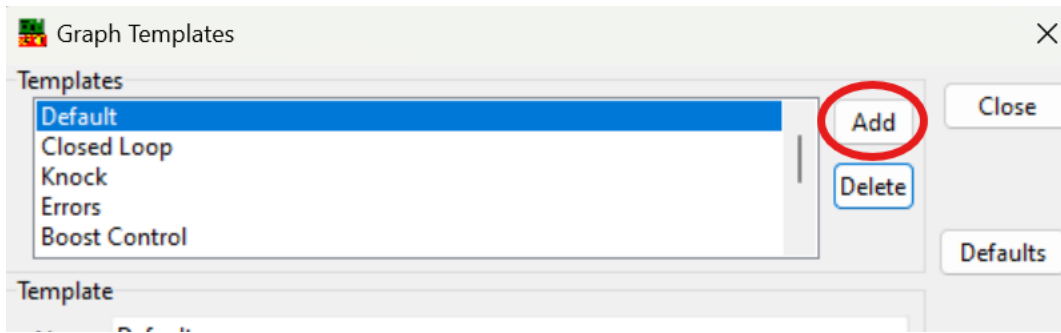
Custom Input

Voltage	Value	Unit
0	0	volts
0	100	volts

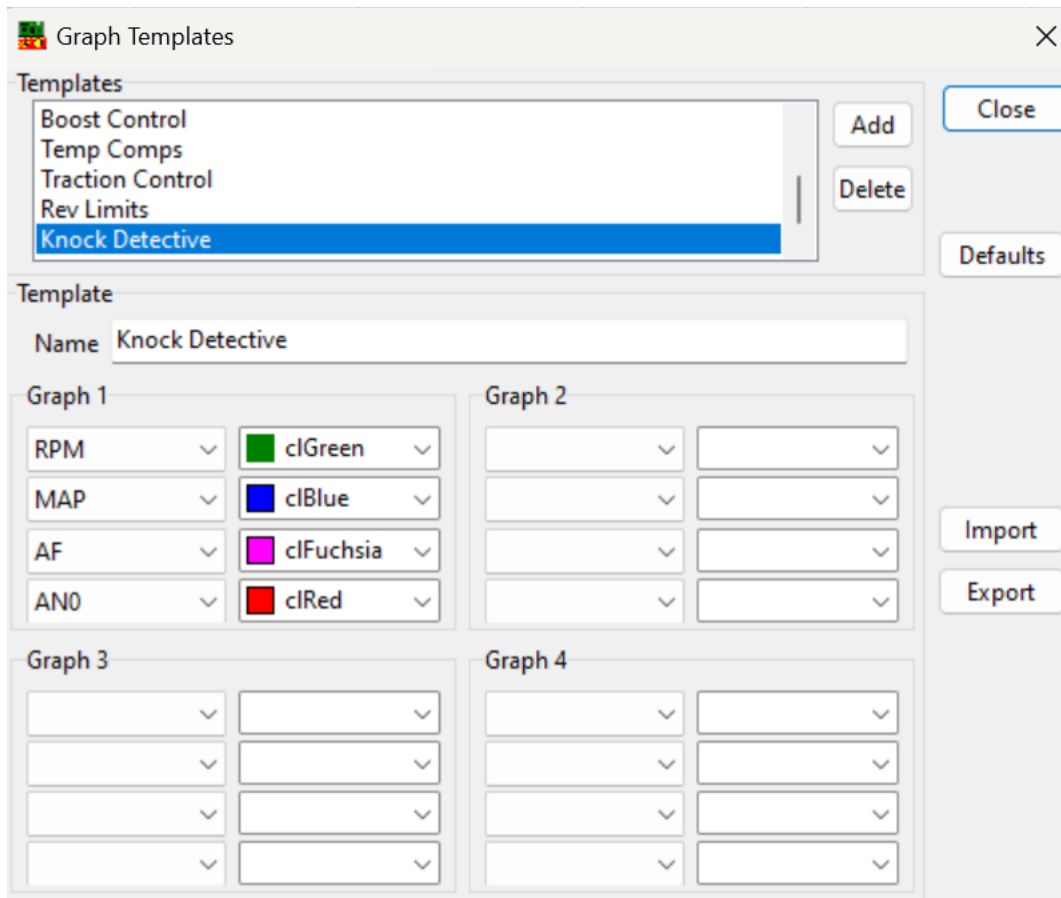
5 - Next, we will set up a graph template to easily view the Knock Detective's output. Click **Options** and then **Graph Templates**:



6 - Click Add to add a new template:



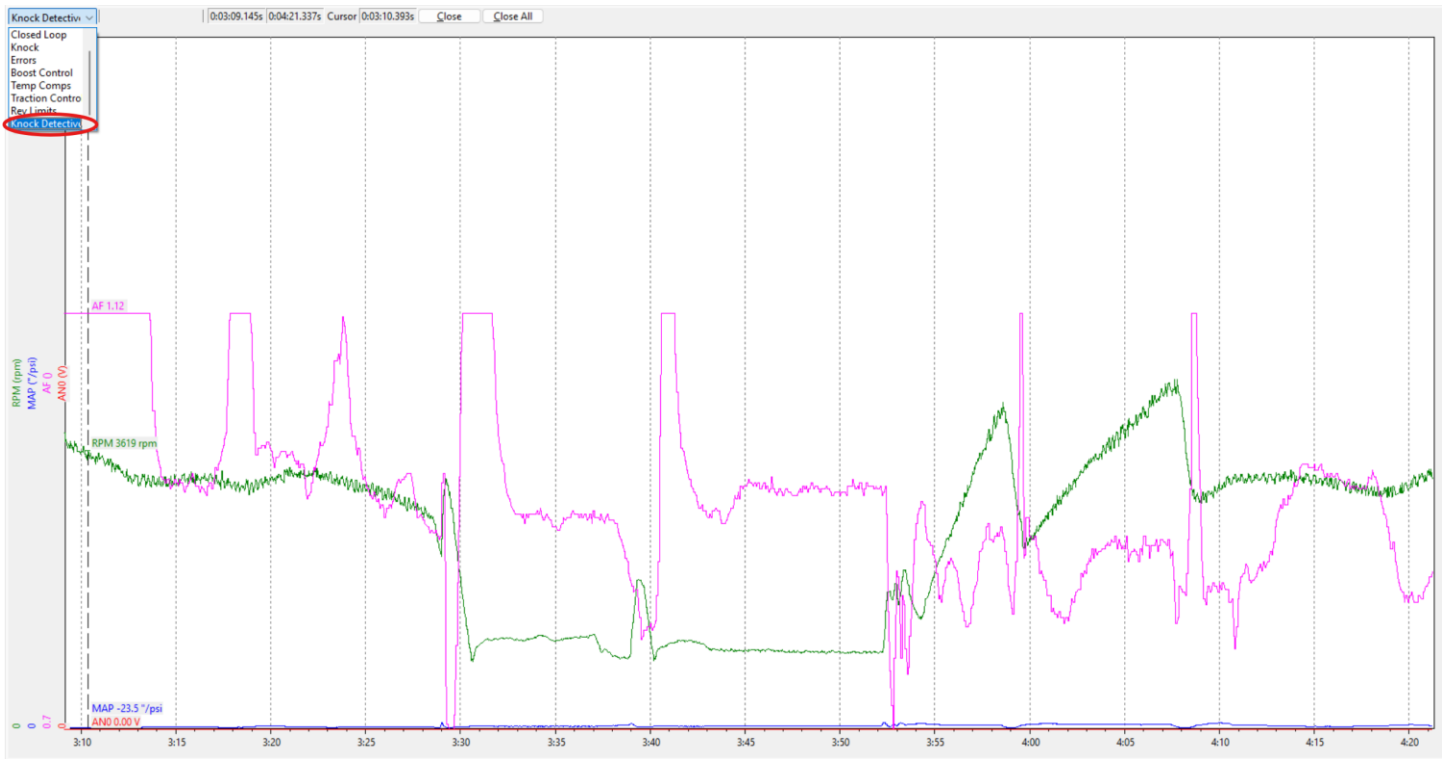
7 - This is how I would suggest you configure it, but you may want to show some other parameters as well. Once you're happy with the config, click close:



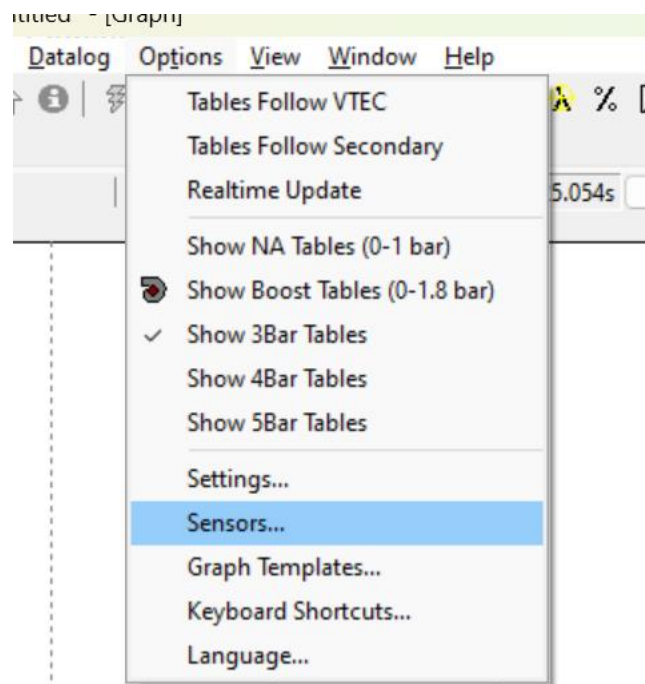
8 - Now click the **Graph** button to view the graph page:



9 - From the dropdown menu in the top left, select your Knock Detective template. You're now ready to start viewing the Knock Detective's output. Remember the voltage will grow with RPM, but you're looking for sharp spikes in the amplitude indicating potential knock events. In the below datalog, the Knock Detective was not connected, but I will have an example datalog in the future (it's currently winter in Canada):



10 - To control the min/max displayed for each parameter click **Options** and then click **Sensors**:



11 - From this page you can now control how vertically zoomed you are for each parameter in the graph. For example, I don't expect to see a gazillion psi of boost, so I will set it to something more reasonable. Now my datalogs will be easier to look at:

Sensor List

Sensor	Name	Description
RPM	RPM	Engine speed
VSS	VSS	Vehicle speed
Gear	Gear	Gear
MAP	MAP	Manifold pressure
TPS	TPS	Throttle angle
INJ	INJ	Injector pulse width
DUTY	DUTY	Injector duty cycle
IGN	IGN	Ignition advance
IAT	IAT	Intake air temperature
ECT	ECT	Engine coolant temperature
O2	O2	Primary oxygen sensor voltage

Close

Import

Export

Sensor

Abbreviation: MAP

Display Name: MAP

Description: Manifold pressure

Type: Pressure

Unit: "/psi

Display Min: -29.92 Display Max: 30 "/psi

Warning Min: -29.92 Warning Max: -29.92 "/psi

